Amendments to the Specification:

On page 1 delete "TRANSLATION".

Please replace the paragraph numbered (0005), with the following rewritten paragraph:

(0005) By the relatively homogenous temperature distribution in the meltdown device there is ensured a uniform melting-off ~~(Abschmelzens)~~ of the mixture. This leads to a good optical homogeneity of the molten material. The melted-down material passes through a draw-off opening or through an overflow, over the platinum tube system, into the refining chamber.

Please replace the paragraph numbered (0008), with the following rewritten paragraph:

(0008) In particular, ~~the~~ lacking sufficient UV transmission of lead-containing glass has prevented an application in the field of reflective liquid crystal displays (r-LCD), although these glass types would be excellently suited for such an application with a view to the very low voltage-optical coefficients.

Please replace the paragraph numbered (0009), with the following rewritten paragraph:

(0009) The problem of the present invention, therefore, is ~~the~~ making available of a new type meltdown device as well as a novel melting process for optical glass types, which permits the production of glass types with high transmission in the UV range. As stated earlier, the melting processes known at present are capable of making such glass types available.

Please replace the paragraph numbered (0012), with the following rewritten paragraph:

(0012) According to the invention the problem is solved by the means that in a meltdown device according to the state of the art the heating arrangement comprises exclusively heating elements, for example electrodes, that are arranged in the zone of the melting bath and, further, an agitating device for the stirring of the melt bath. Preferably, the melting tank is a circular crucible into which the agitator is installed centrally. The agitator comprises, in a preferred form of execution, three sections: a first section which is guided centrally into the melting crucible, a second section that is continued at a 90^0 ~~C-angle(sic)~~ angle just below the melt

surface, and a third section which is led down at about two thirds of the outer radius of the melting crucible, again at a 90^0 ~~C-angle~~ angle. Such a design of the agitator provides for a uniform intermixing and sub-mixing into the melt of the material from the mixture resting on the melt surface.

Please replace the paragraph numbered (0013), with the following rewritten paragraph:

(0013) For ~~the~~ temperature control and ~~the~~ temperature management, measuring devices can be ~~arranged~~ located both in the bottom and in the vaulting.

Please replace the paragraph numbered (0014), with the following rewritten paragraph:

(0014) Besides the device, the invention makes available also a process for the production of glass types with high transmission the UV range. The process is distinguished in that a well homogenized mixture of highly pure glass material is fed in in such manner that on the melt surface a closed mixture ~~cover (Gemengedecke)~~ is formed, energy is supplied exclusively in the zone of the glass melt and the glass melt is stirred already during the melting-in.

Please replace the paragraph numbered (0015), with the following rewritten paragraph:

(0015) The inventors have perceived, surprisingly, that in the inventive process the melting-in can be accelerated during the melting in without there arising any of the disadvantages normally associated with the stirring. In the inventive process, accordingly, it is especially avoided that the crucible material is stressed ~~(beansprucht)~~ by mixture particles, since according to the invention the stirring occurs only under the mixture cover.

Please replace the paragraph numbered (0019), with the following rewritten paragraph:

(0019) Fig. 1 shows a cross section through a meltdown tank according to the state of the art, which ~~(tank)~~ tank is used in a 3-basin continuous melting aggregate for

small melt volumes. From the meltdown tank 1 the ~~melted up~~ melted mixture or glass 3 passes over the draw-off opening 5 and a platinum tube system 7 to the refining chamber (not shown), from there into the unrepresented agitating crucible and ~~than~~ then into a feed with subsequent thermal shaping. The throughput of such a device ~~amounts to~~ is about 150 to 200 kg/hr. The meltdown device according to the state of the art comprises, besides the meltdown tank 1, a cover 9 as well as a feed opening 11 and a chimney 13.

Please replace the paragraph numbered (0020), with the following rewritten paragraph:

(0020) The glass melt 13 has a melt surface 15 onto which highly pure raw material is applied either in portions or continuously through the feed or lay-in opening 11. According to the state of the art no closed mixture cover is generated here. The melting process proper is heated by the 2 X 4 electrodes 17.1, 17.2, 17.3, and 17.4 arranged underneath the melt surface; ~~in the second place~~ furthermore the surface 15 of the melt 3 is fired by two angularly arranged burners 19. There the respective energy input of the two heating devices, namely of the electrodes 17.1, 17.2, 17.3, and 17.4 as well as the burner 19, is electronically generated over the thermal elements 23, 25 arranged in the cover of the vaulting 9 and at the bottom 21 of the melting tank in such manner that the temperature in the region of the vaulting corresponds, at approximately 1300°C, with the level of the bottom temperature, at approximately 1350°C. This guarantees the uniform melting-down of the mixture and therewith the optical homogeneity of the material. In Fig. 2 there is shown a plan view of a device according to the state of the art.

Please replace the paragraph numbered (0025), with the following rewritten paragraph:

(0025) The device according to the invention, in contrast, has an agitator 30. The agitator 30 comprises a first section 30.1 which is mounted centrally in the meltdown tank 1, a second section 30.2 which is connected to the first section at a 90° angle closely underneath the melt surface 15 as well as a third section which is moved downward at about two thirds of the outer radius of the meltdown tank 1, again at a 90° angle. Such a construction of the agitator guarantees the uniform intermixing and sub-mixing into the melt of material from the

mixture resting on the melt surface 15 in a closed mixture cover, and therewith the uniform melting-off despite ~~elosesd~~ the closed mixture cover. The absent firing of the vaulting brings about altogether a lower temperature of approximately 1250 °C in the melt basin. The closed mixture cover prevents the inhomogeneous lowering of the temperature upward to the cold superstructure. By reason of the absent firing of the melt surface 15, the energy input into the new-type melt device is considerably less; simultaneously with the new-type process under the novel meltdown device the UV transmission of the molten glass types and in the case of the SF glass types in addition, the fluorescence properties are dramatically improved. The optical homogeneity of a device according to Fig. 3, according to the earlier-described glass, corresponds to that of a glass which is produced in the usual process course in a device according to the state of the art.

Please replace the paragraph numbered (0026), with the following rewritten paragraph:

(0026) In Fig. 4 there is known a plan view of the inventive novel melting device. Like components are marked with the same reference numbers as those in Fig. 3. Especially ~~well~~ to be recognized is the agitator 30 with the first section 30.1, the second section 30.2 and the third section 30.3.

Please replace the paragraph numbered (0030), with the following rewritten paragraph:

(0030) Table 3 gives the pure-transmission degree ~~(Reintransmissionsgrad)~~ of the glass produced for different types, namely of the conventional glass types and of the glass types produced according to the invention.

Table 3: Pure-transmission degree

	Wavelength [nm] - Pure-transmission (100 mm layer thickness)				
Glass type	365	380	390	400	520
Glass 1			14	42	76

Glass 1 HT			21	53	83
Glass 2	94	97	98	98.5	
Glass 2 HT	97	98	98.7	99	
Glass 3	92	96.5	97.8	98.4	
Glass 3 HT	96.5	98.3	98.8	99.1	
Glass 4	77	91	94	96	
Glass 4 HT	87	95	96.8	98	

Please replace the paragraph numbered (0033), with the following rewritten paragraph:

(0033) The following ranges are preferred:

Table 5

Component		Ranges	
$Si0_2$	40-67	40-58	47-67
PbO	20-51	29-51	20-39
Na_20	1.5-9	1.5-9	2-9
K_20	3-10.5	3-9	2-9
As_20_3	0 - 1	0 - 1	0 – 1

Please replace the paragraph numbered (0034), with the following rewritten paragraph:

(0034) The composition ranges of the glass 1, glass 2, glass 3 and glass 4 glass types preferably of the Flint, Light Fling types, is given in percent by weight, by way of example in the following Table 6:

Table 6

Glass Type

Component	Glass 1	Glass 2	Glass 3	Glass 4
SiO_2	19-30	56-67	47-58	40-51
PbO	69-80	20-31	29-39	40-51
Na_20	0-2.5	2 – 7	4.5-9	1.5-6
K_20	0-2.5	6-10.5	5 – 9	3 – 7
As_2O_3	0- 1	0- 1	0- 1	0- 1

Please replace the paragraph numbered (0036), with the following rewritten paragraph:

(0036) Table 7: Further glass compositions contain, for example, Ba, and do not contain Pb

	Glass type
Component	
$Si0_2$	25-70
$B2^03$	2-12
$A1_20_3$	0-4
Na_20	0-11
K_20	0-10
CaO	0-10
BaO	3-45
ZnO	0-20
$Ti0_2$	1-12
$Zr0_2$	0-7
Sb_2O_3	0-1

Please replace the paragraph numbered (0037), with the following rewritten paragraph:

(0037) The following ranges are preferred:

Table 8:

Component		Glass Type
SiO_2	25-60	45-70
B_2O_3	3-12	2-12
Al_2O_3	0-4	
Li_2O		
Na_2O	0-9	1-11
K_2O	0-8	3-10
MgO		
CaO	0-10	
BaO	8-45	3-22
SrO		
ZnO	0-9	0-20
TiO_2	3-12	1-7
ZrO_2	0-7	0-2
Sb_2O_3	0-1	0-1

Please replace the Abstract with the following amended Abstract (a replacement Abstract is attached).

ABSTRACT

The invention relates to a meltdown device for the production of high-UV transmittive glass types, comprising

- a meltdown tank for a melt bath
- a feed opening for the supplying or laying-in of highly pure raw material for the melt bath
- a draw-off opening for the drawing-off of material melted in the melt tank
- a cover arranged above the melt tank,in which
- the infeed opening to the melt tank is arranged above the melt bath in the region of the cover
- the draw-off opening is arranged in the zone of the bottom of the melt tank
- a heating arrangement.

~~The invention is characterized in that the~~ The heating arrangement comprises heating elements, in particular electrodes that are arranged on the melt tank in the zone of the melt bath, as well as an agitating arrangement for ~~the~~ stirring of the melt bath and uniform intermixing and sub-mixing into the melt of material from the mixture lying on the melt surface.

~~(Fig. 3)~~